

Claim 28 (Twice Amended). A program product comprising:

- (A) a applet, said applet including an object reference uniform resource locator for retrieving an object reference for a naming context object from a web server apparatus having access to said object reference, said applet requesting said object reference for said naming context object using said uniform resource locator; and
- (B) signal bearing media bearing said applet.

Remarks

The pending office action has been made final by the Examiner. The Examiner stated that applicant's amendment necessitated the new grounds of rejection, and that it was thus appropriate to make this action final. Applicants respectfully disagree. Applicants note that not all the claims on file were amended after the first office action. Particularly, claims 7-20 and 33-36 were not amended in the previously filed amendment. Because these claims were not amended, and the Examiner has nevertheless issued new rejections, the pending office action should not have been made final. See 37 C.F.R 1.113 and MPEP §706.07. Applicant therefore requests reconsideration and that the finality of the rejection be withdrawn as premature.

Claims 1, 5-9, 18, 21-23, 26, 27, 29, and 30 were rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Bezviner, et al. (U.S. Patent No. 5,737,607, hereinafter "Bezviner") in view of Cheng, et al. (U.S. Patent No. 5,793,365, hereinafter "Cheng").

As per claim 1, the Examiner stated that Bezviner discloses a computer program including a object reference server mechanism or server process for bootstrapping a remote second apparatus or browser, said object reference server mechanism delivering an object

reference for a naming context object to said remote second apparatus upon request of said second apparatus by saying the first object in a first address space or object reference server; a second object in a second address or second apparatus; and the bootstrapping a remote second apparatus such as a process bootstrapping communication which activating, invoking and calling a object. The Examiner further stated that Bezviner also disclose the signal bearing media, the recordable media and transmission media such as local hard disk. The Examiner then admitted that Bezviner does not teach the naming context object. The Examiner than stated that Cheng taught an information system which has distributed object name services including shared properties, disclosed one or more files are constructed which exist in the file system, each of the files capturing the semantics *of the naming context object*. The Examiner then concluded that it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the naming context module in an information system as taught by Cheng into the data processing system of Bezviner in order to provide the persistence of name object bindings between servers and clients communications.

As per claims 5 and 6, the Examiner stated that Bezviner-Cheng disclose the object reference comprises a stringified object reference.

As per claims 7-9, 18, 21-23, 26, 27, 29, and 30, the Examiner stated that the claims contain the same limitations that were addressed in rejecting claims 1, 4, 5 and 6.

Applicant respectfully disagrees with these conclusions. Additionally, applicant has amended independent claims 1, 7, 21 and 28 to more particularly point out and distinctly claim what applicant regards as his invention. Applicant respectfully submits that these amended claims are patentably distinct over the cited Bezviner and Cheng references. For example, in amended independent claim 1, applicant has added language clarifying that the

object reference server mechanism comprises a web server and that the remote second apparatus comprises a web browser. Amended independent claims 7, 21 and 28 include similar limitations. Applicants submit that neither Bezviner nor Cheng discloses the use of a web server as a object reference server mechanism for "delivering an object reference for a naming context object to said remote second apparatus upon request of said second apparatus." The Examiner admits this on page 4 of the office action, where it is stated that Bezviner-Cheng did not teach a web server, browser, web application, URL, web server directory, Java applet. Accordingly, it is submitted that amended independent claims 1, 7, 21 and 28 are patentably distinct over the cited Bezviner - Cheng combination. Furthermore, as claims 2-6, 8-20, 22-27 and 29 - 32 depend from claims 1, 7, 21 and 28, they are also submitted to be patentable over these cited references.

However, in the office action the Examiner rejected claims 2-4, 10-17, 19, 20, 24, 25, 28, 31-36 under 35 U.S.C. § 103(a) as being unpatentable over Bezviner in view of Cheng and further in view of Elliot, *et al.* (U.S. Patent No. 5,867,495, hereinafter "Elliot"). Again, the Examiner states that Bezviner-Cheng did not teach a web server, browser, web application, URL, web server directory, Java applet. The Examiner then states that Elliot in his application on hybrid network, disclosed web server; web browser; web application such as E-mail; web server directory; Java applet. Therefore, the Examiner concluded that it would that it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the Bezviner-Cheng computer program which has a object reference server mechanism delivering an object reference for a naming context object into Elliot network which has web server running Java applet in order to provide the persistence of the bindings between the client/server communications.

Again, applicant respectfully disagrees and submits that the claims, as amended, are patentably distinct over the Bezviner-Cheng-Elliot combination. First, applicants would

again like to point out that the claimed invention is directed toward bootstrapping a distributed object system. As described in applicants specification, distributed object systems such as that defined by CORBA facilitates interactions between remote objects. These remote interactions between objects can be used to provide a wide variety of services, such as services over the Internet using web browsers. Unfortunately, as described by applicants specification, these distributed object interactions were limited to clients where configuration data had been previously installed. This precluded the use of web browser as "zero install" distributed object clients. To overcome this, the claimed invention provides a mechanism and method for delivering a reference to a naming context object to the remote apparatus. Again, as described in applicant's specification, naming context objects are objects used to get proxy objects when requested by client objects and thus act as a distributed object oriented directory. A reference to a naming context object is required for a client objects to find remote objects. Thus, by providing an object reference server mechanism delivering an object reference to a naming context object, the preferred embodiment allows a zero install distributed object client to be bootstrapped into the distributed object system. The invention, as now claimed, uses a web server as an object reference server to allow a web browser to function as a zero install distributed object client. For example, in a CORBA based system, a reference to the naming context object can be delivered from the web server to the web browser and then used to obtain a proxy for the naming context object, and that allows the remote client to then use the naming context object on the server to obtain proxies for other objects on the server. Without the critical step getting a reference to the naming context object to the remote client, the use of a web browser as a distributed object client would be severely limited.

Second, applicant submits that the cited references do not disclose these claimed features. Instead, the Examiner seems to have taken three otherwise unrelated pieces of art and combined them without any justification for doing so. As far as the applicant can tell,

Bezviner deals with remote object interaction generally, but does not otherwise relate to applicant's invention. Furthermore, Cheng, seems to only disclose the use of a naming context object in general. There appears to be nothing in Cheng that would be comparable to the claimed "object reference server" that delivers a "naming context object reference" for bootstrapping when requested by a remote client. Certainly, the portions of Cheng cited by the Examiner do not discuss such an element, and most certainly there is no hint that a web server could function as such an object reference server. If there is such an element in Cheng, applicant respectfully requests that the Examiner specifically point out that element. Finally, with regard to Elliot, it appears to the applicant that while the cited portion of Elliot actually discusses a web server, there is no hint or other motivation to suggest that the web server of Elliot could be used as an object reference server as claimed. Applicant again invites the Examiner to point out where in Elliot there is any motivation to make their web server function as an object reference server for a naming context object reference. Instead, the cited portion seems to be simply discussing regular web server type activity. Applicant believes that there is thus no justification in combining this reference with Cheng and concluding that it is obvious to use a web server as an object reference server that delivers a naming context object reference for bootstrapping when requested by a remote client.

Furthermore, there is certainly no discussion in Elliot of a Java applet used to request an object reference for a naming context object, as substantially recited in claims 19 and 28. Again, the cited portion of Elliot seems to only mention Java as part of a general web discussion.

In summary, Applicant submits that there is not sufficient motivation to combine these references as the Examiner has done. Furthermore, applicant submits that even if these references were combined, the combined system would not include all the elements and/or steps recited in the independent claims 1, 7, 21, 28 33 and 34.

In summary, none of the references cited by the Examiner nor any other known prior art, either alone or in combination, disclose the unique combination of features disclosed in applicant's claims presently on file. For this reason, allowance of all of applicant's claims is respectfully solicited.

Applicants hereby declare that any amendments herein that are not specifically made for the purpose of patentability are made for other purposes, such as clarification, and that no such changes shall be construed as limiting the scope of the claims or the application of the application of the Doctrine of Equivalents.

If any fees are due as a result of this response, please charge IBM Corporation Deposit Account 09-0465. The examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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